

AD-A160 527

CLARENCE CANNON DAM AND MARK TWAIN LAKE FOUNDATION AND
EMBANKMENT COMPLET (U) ARMY ENGINEER DISTRICT ST LOUIS
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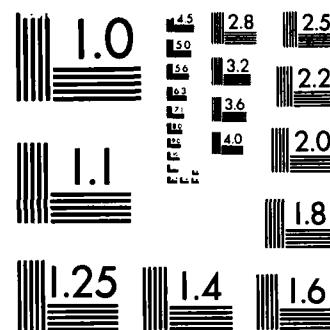
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

CLARENCE CANNON DAM & MARK TWAIN LAKE

AD-A160 527

FOUNDATION AND EMBANKMENT COMPLETION REPORT

PART II MAIN DAM

PHASE II CONSTRUCTION AND RELATED CONTRACTS

VOLUME III — PHOTOGRAPHS

PAGES 60 THRU 136

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**US Army Corps
of Engineers
St. Louis District**

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SECTION 2

CONCRETE STRUCTURE:

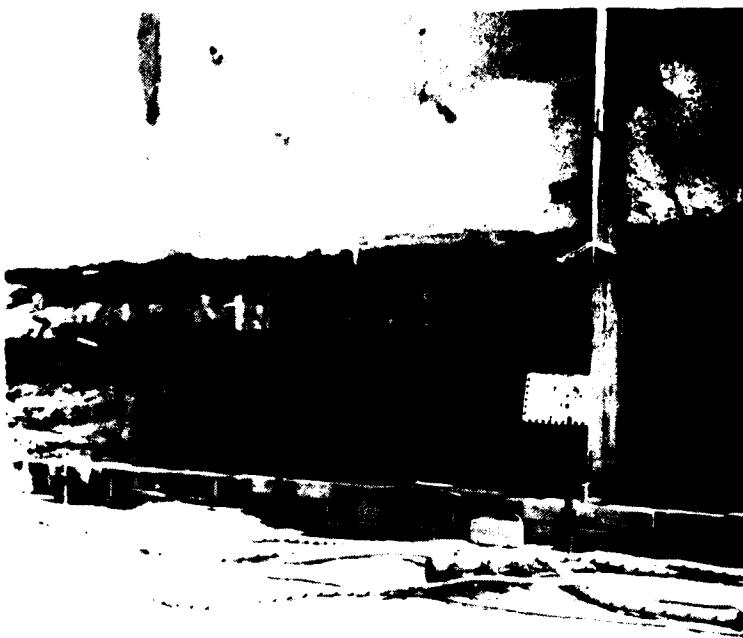
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F. TAILRACE	132 - 136

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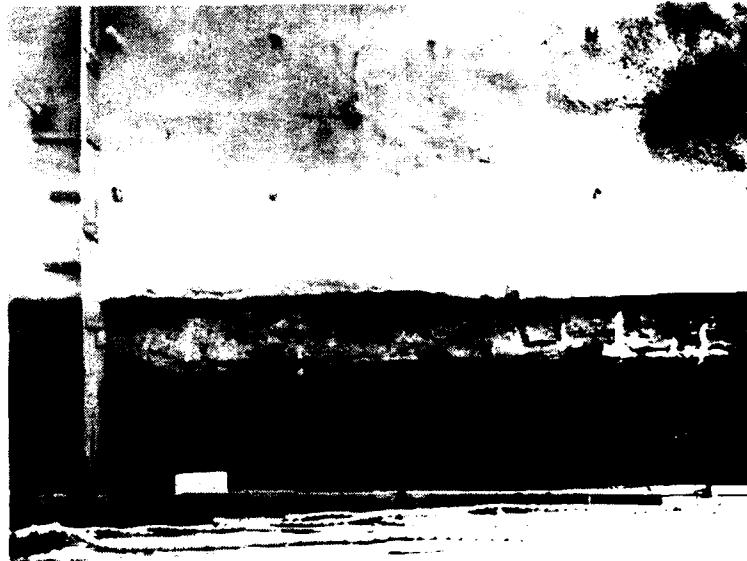


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Station 3+00, Offset 80 feet downstream. Elevation 465 feet.
Final foundation, Monolith D11/12. 19 June 1975.



Station 3+00, Offset 75 feet downstream, Elevation 465 feet.
Final foundation, Monolith D11/12. 19 June 1975.



Station 3+20, Offset 72 feet downstream. Elevation 465 feet.
Final foundation, Monolith D11/12. 11 July 1975.



Station 3+55, Offset 40 feet upstream. Elevation 472 feet.
Monolith D11/12. 5 May 1975.



Station 3+15, Offset 40 feet upstream, Elevation 465 feet.
Final foundation, Monolith D11/12. 6 August 1975.



Station 2+75, Offset 85 feet downstream, Elevation 513 feet.
Monolith D13. 24 October 1974.



Station 2+75, Offset 35 feet downstream, Elevation 513 feet.
Monolith D13. 24 October 1974.



Station 2+75, Offset 18 feet downstream, Elevation 513 feet.
Monolith D13. 24 October 1974.



Station 2+87, Offset centerline, Elevation 487 feet. Final foundation, Monolith D13. 17 December 1974.



Station 2+80, Offset 20 feet upstream, Elevation 510 feet. Monolith D13. 28 October 1974.



Station 2+87. Offset 15 feet upstream. Elevation 485 feet.
Final foundation, Monolith D13. 17 December 1974.



Station 2+75. Monolith D14, note high angle relief jointing
expressed on floor. 26 September 1974.



Station 2+57, Offset 68 feet downstream, Elevation 528 feet.
Final foundation, Monolith D14. 4 July 1974.



Station 2+57, Offset 68 feet downstream, Elevation 528 feet.
Final foundation, Monolith D14. 4 July 1974.



Station 2+47, Monolith D14. Note high angle relief jointing expressed on floor. 26 September 1974



Station 2+61, Offset 74 feet downstream. Elevation 528 feet. Final foundation, Monolith D14. 4 October 1974.



Station 2+47, Offset 70 feet downstream, Elevation 528 feet.
Final foundation, Monolith D14. 4 October 1974.



Station 2+50, Offset 38 feet downstream, Elevation 553 feet.
Monolith D14. 6 July 1974.



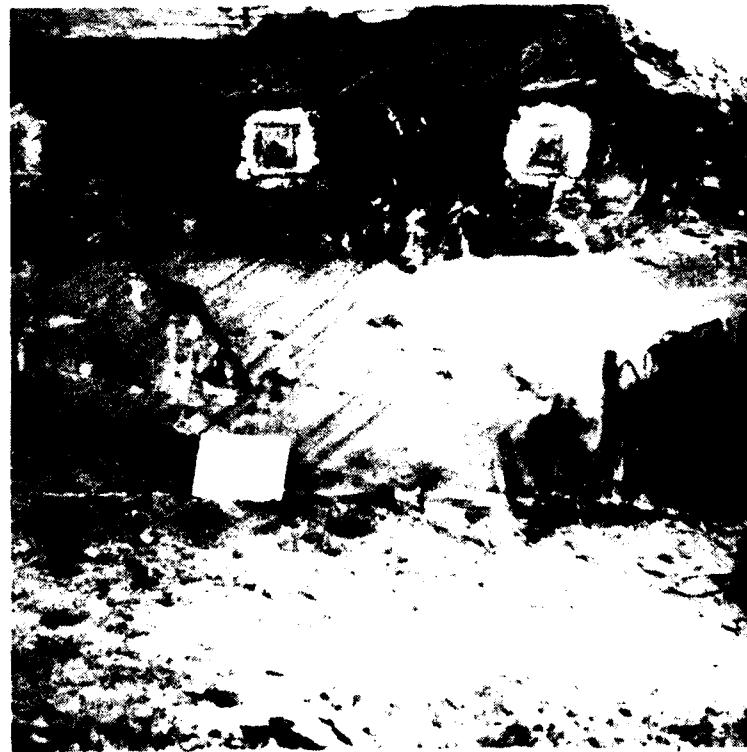
Station 2+50, Offset 58 feet downstream, Monolith D14. 6 June 1974.



Station 2+50, Offset 58 feet downstream, downstream corner of Monolith D14. 6 June 1974.



Station 2+45, Offset 10 feet upstream, Elevation 535 feet.
Monolith D14. 3 September 1974.



Station 2+60, Offset 20 feet upstream, Elevation 535 feet.
Monolith D14. 27 August 1974.



Station 2+56, Offset 20 feet upstream. Elevation 543 feet.
Monolith D14. 25 June 1974.



Upstream Wall of Monolith D14. October 1974.



Station 2+16, Offset 48 feet downstream. Elevation 549 feet.
Final foundation, Monolith D15. 2 July 1974.



Station 2+16. Offset 35 feet downstream, Elevation 548 feet.
Final foundation, Monolith D15. 2 July 1974.



Station 2+16, Offset 6 feet downstream, Elevation 546 feet.
Final foundation, Monolith D15. 1 July 1974.



Station 2+26, Offset 20 feet upstream, Elevation 542 feet.
Final foundation, Monolith D15. 1 July 1974.



Station 2+15, Offset 45 feet downstream, Elevation 570 feet.
Monolith D15. 6 May 1974.



Station 2+23, Offset 58 feet downstream, Elevation 590 feet.
Monolith D15. 2 April 1974.



Station 2+35, Offset 58 feet downstream, Elevation 560 feet.
Monolith D15. 29 May 1974.



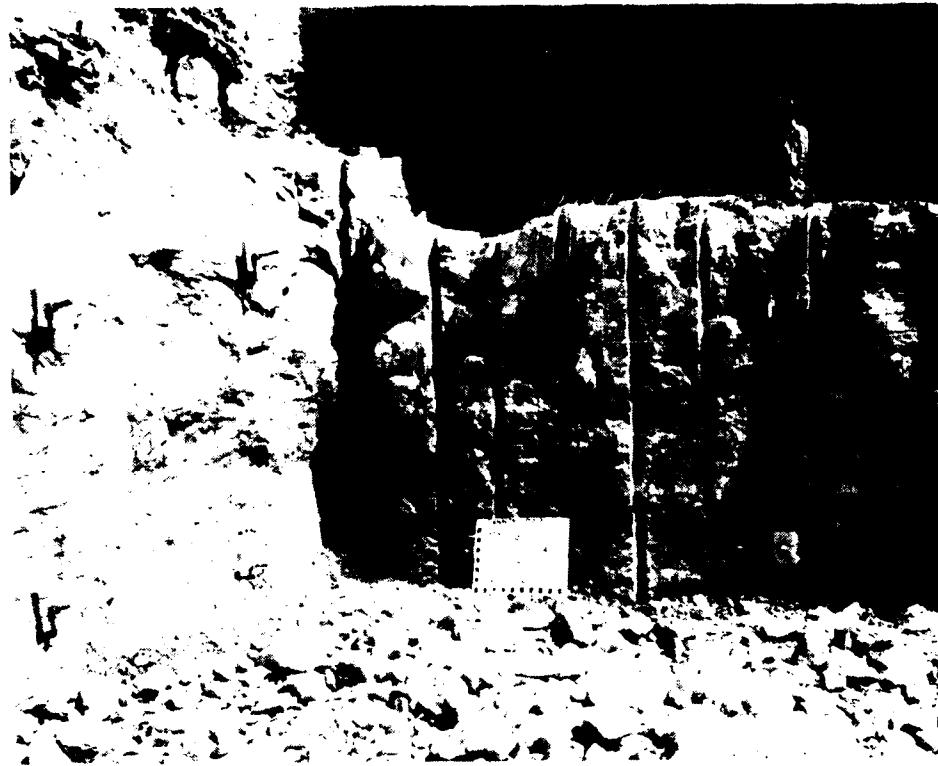
Station 2+25, Offset 58 feet downstream. Elevation 560 feet.
Monolith D15. 29 May 1974.



Station 2+35, Offset 57 feet downstream, Elevation 554 feet.
Monolith D15. 5 June 1974.



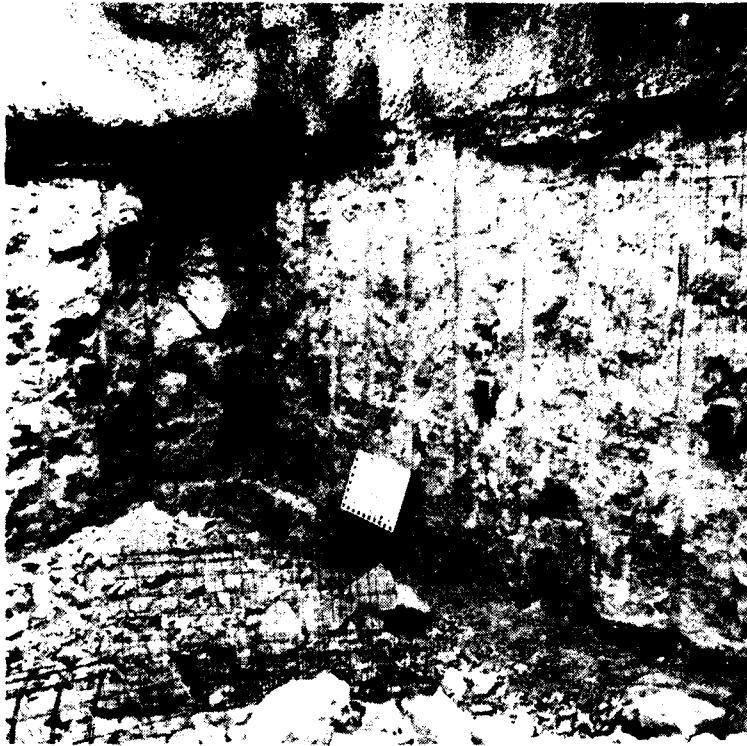
Station 2+25, Offset 56 feet downstream, Elevation 570 feet.
Monolith D15. 6 May 1974.



Station 2+15, Offset 54 feet downstream, Elevation 570 feet.
Monolith D15. 11 May 1974.



Station 2+15, Offset 50 feet downstream, Elevation 554 feet.
Monolith D15. 5 June 1974.



Station 2+15, Offset 50 feet downstream, Elevation 560 feet.
Monolith D15. 29 May 1974.



Station 2+16, Offset 35 feet downstream, Elevation 548 feet.
Monolith D15. 25 June 1974.



Station 2+15, Offset 20 feet downstream. Elevation 545 feet.
Monolith D15. 5 June 1974.



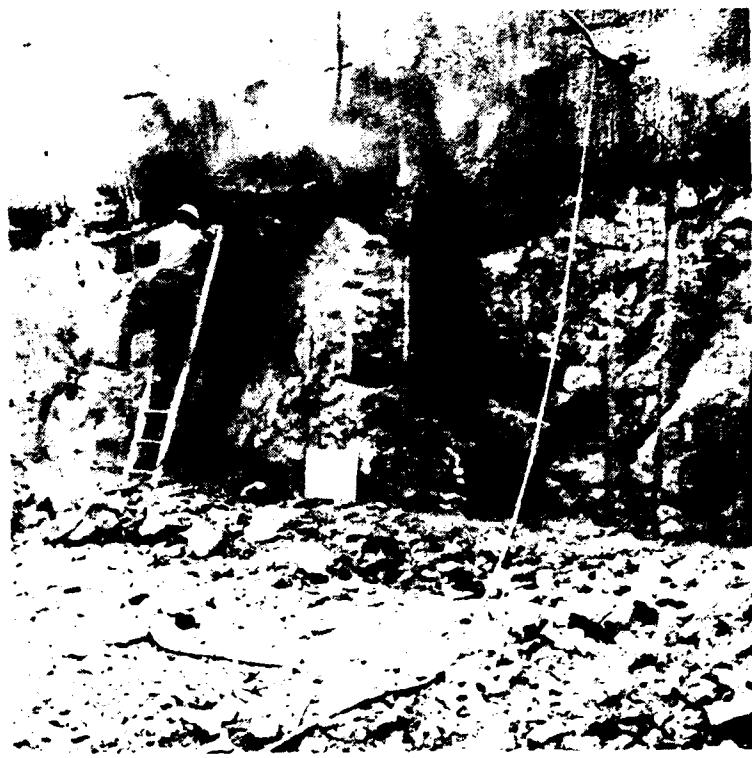
Station 2+15, Offset 20 feet downstream. Back wall of
Monolith D15. 6 June 1974.



Station 2+15, Offset 20 feet downstream, Elevation 570 feet.
Monolith D15. 6 May 1974.



Station 2+16, Offset 15 feet downstream, Elevation 546 feet.
Monolith D15. 25 June 1974.



Station 2+15, Offset centerline, Elevation 560 feet.
Monolith D15. 29 May 1974.



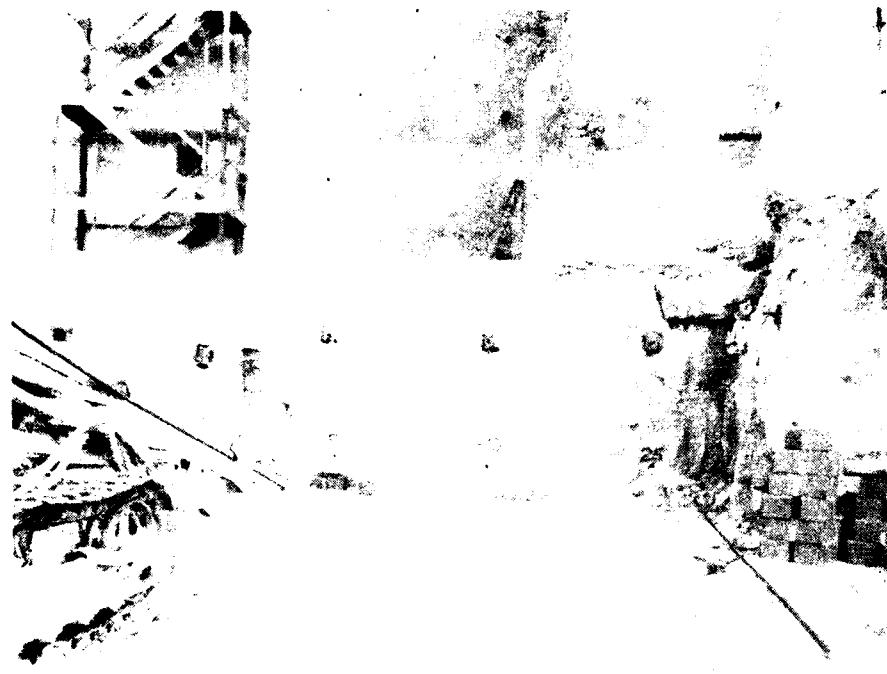
Station 2+15, Offset centerline, Elevation 550 feet.
Monolith D15. 21 June 1974.



Station 2+15, Offset 13 feet upstream, Elevation 590 feet.
Monolith D15. 2 April 1974.



Station 2+15. Offset 17 feet upstream, Elevation 580 feet.
Monolith D15. 11 April 1974.



Station 2+15, offset 10 feet upstream, elevation 570 feet.
Monolith D15. 6 May 1974.



Station 2+15, offset 16 feet upstream, elevation 560 feet.
Monolith D15. 29 May 1974.



Station 2+15, Offset 20 feet upstream, Elevation 553 feet.
Monolith D15. 6 June 1974.



Station 2+16, Offset 15 feet upstream, Elevation 543 feet.
Monolith D15. 25 June 1974.



Station 2+20, Offset 21 feet upstream. Elevation 570 feet.
Monolith D15. 6 May 1974.



Station 2+25, Offset 21 feet upstream. Elevation 560 feet.
Monolith D15. 29 May 1974.



Station 2+35, Offset 21 feet upstream, Elevation 554 feet.
Monolith D15. 5 June 1974.



Southwest corner of Monolith D16. Typical preparation of
final foundation floor. 19 April 1974.



Station 1+90, Offset 25 feet downstream, Elevation 579 feet.
Final foundation, Monolith D16. 19 April 1974.



Station 2+00, Offset 34 feet downstream, Elevation 579 feet
Final foundation, Monolith D16. 19 April 1974.



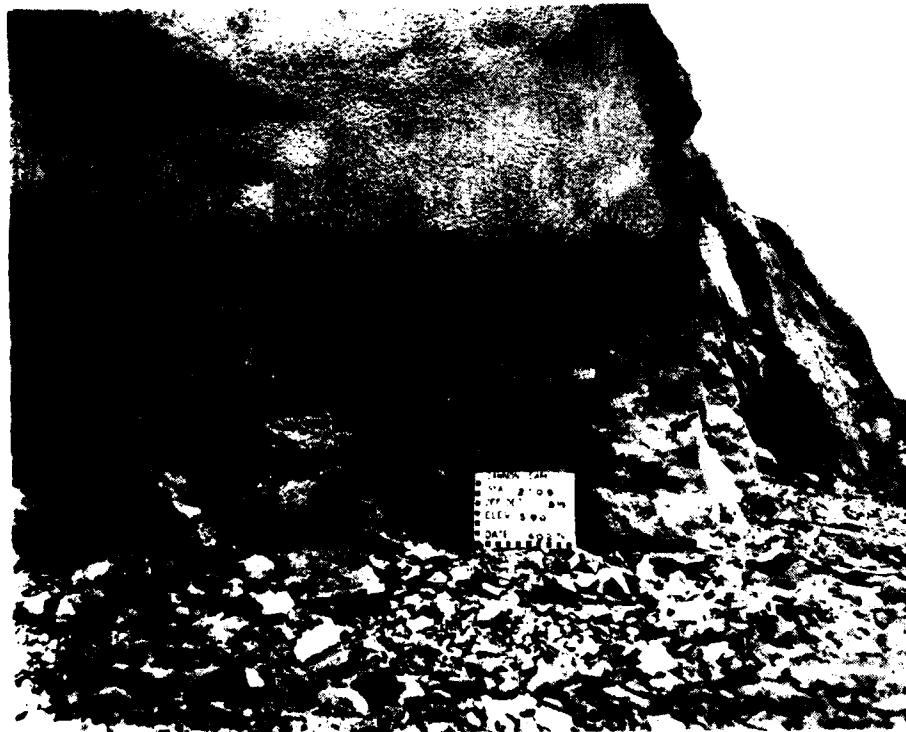
Station 2+30, Offset downstream, Elevation 590 feet, Monolith D16.
Typical foundation preparation of Monolith floor. 19 April 1974.



Back wall of Monolith D16, Elevation 612 feet. 8 October 1973.



Station 1+86, Offset 13 feet upstream. Elevation 590 feet.
Monolith D16. 2 April 1974.



Station 2+05, Offset 13 feet upstream. Elevation 590 feet.
Monolith D16. 2 April 1974.



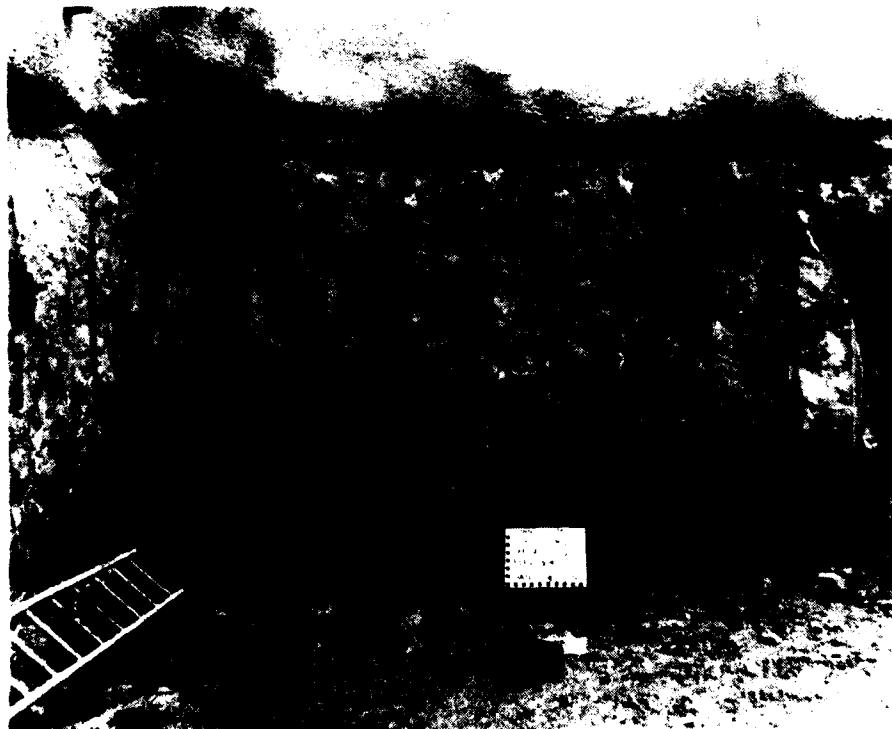
Station 1+95, Offset 15 feet upstream, Elevation 580 feet.
Monolith D16. 11 April 1974.



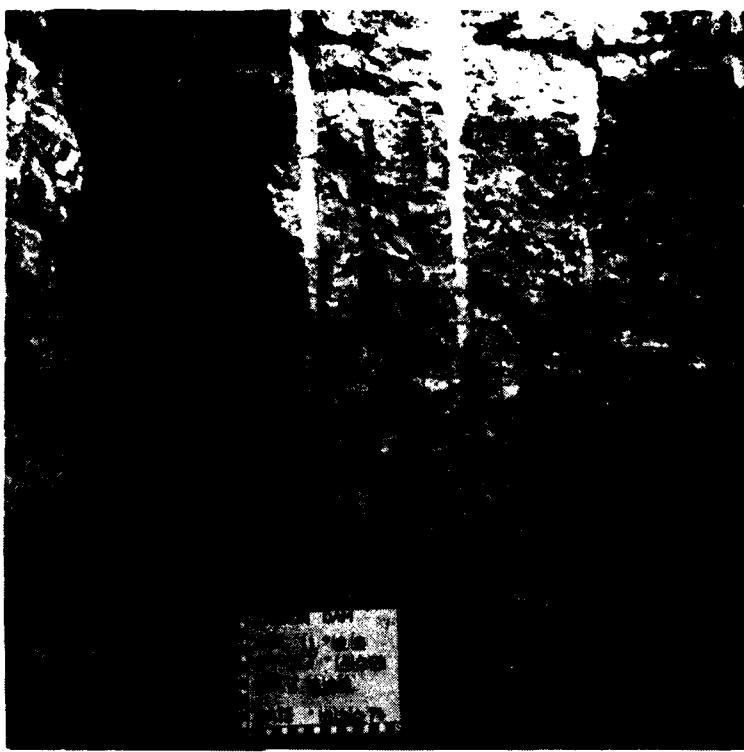
Station 1+86, Offset centerline, Elevation 580 feet. Monolith
D16. 11 April 1974.



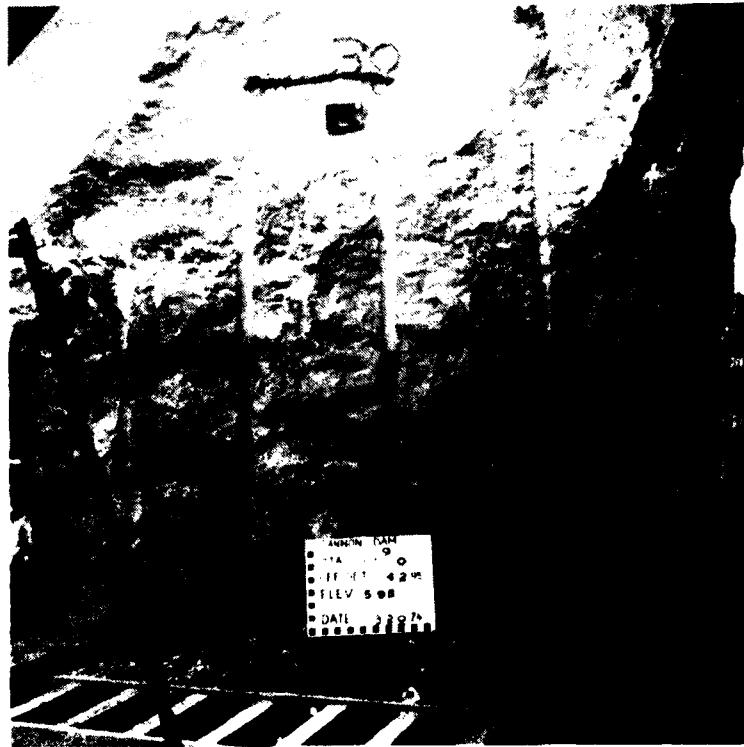
Station 1+86, Offset 15 feet downstream, Elevation 590 feet.
Monolith D16. 2 April 1974.



Station 1+95, Offset 15 feet downstream, Elevation 580 feet.
Monolith D16. 11 April 1974.



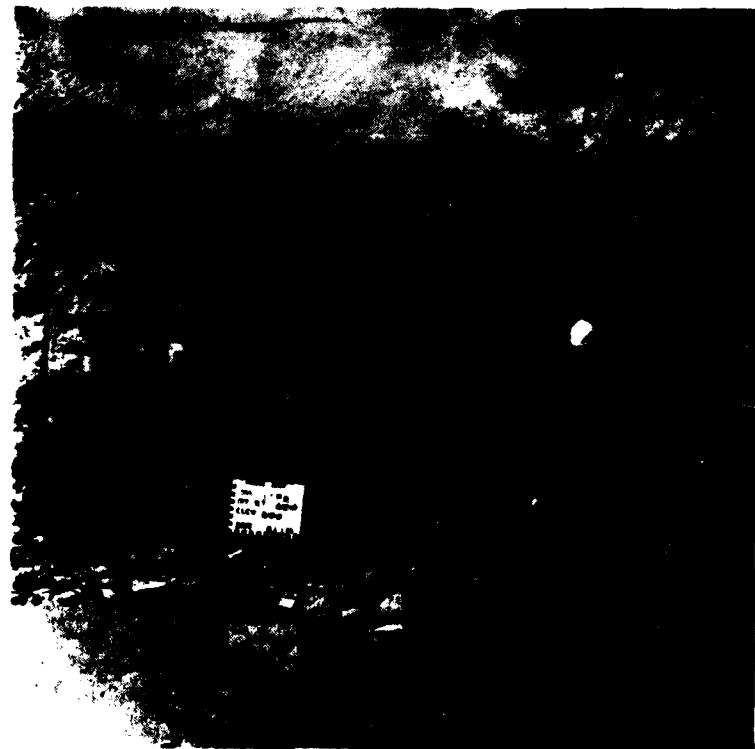
Station 1+86, Offset 40 feet downstream. Elevation 595 feet.
Back wall of Monolith D16. 20 March 1974.



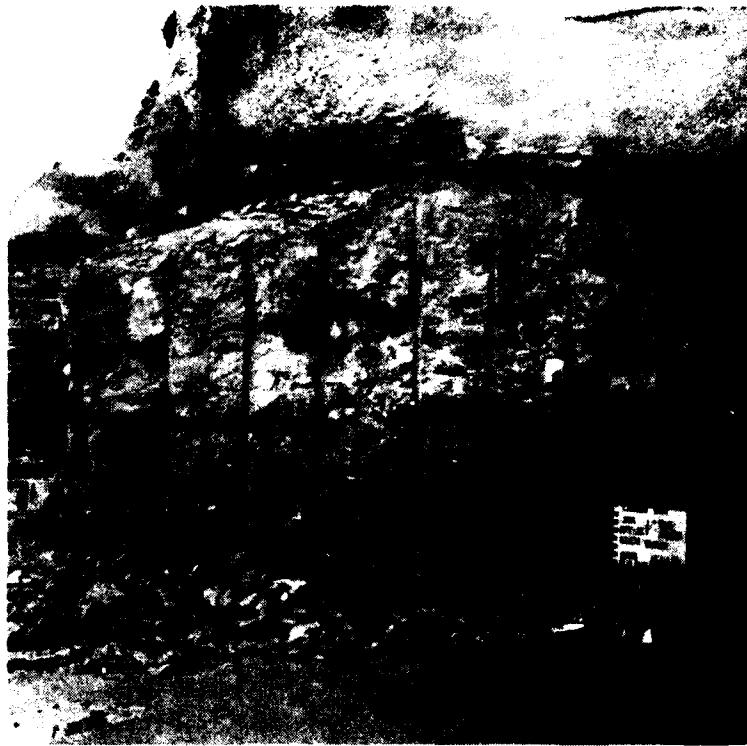
Station 1+90, Offset 42 feet downstream. Elevation 595 feet.
Downstream wall of Monolith D16. 20 March 1974.



Station 1+86, Offset 20 feet downstream. Elevation 580 feet.
Back wall of Monolith D16. 11 April 1974.



Station 1+95, Offset 35 feet downstream. Elevation 580 feet.
Downstream wall of Monolith D16. 11 April 1974.



Station 1+95, Offset 35 feet downstream. Elevation 580 feet.
Downstream wall of Monolith D16. 11 April 1974.



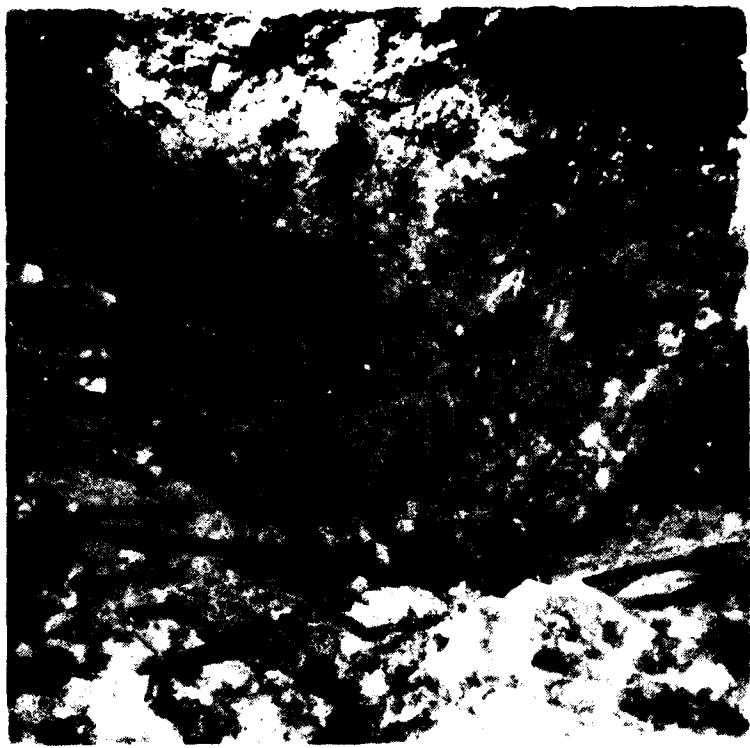
Excavation for Monolith D17. 9 September 1973.



Southwest corner of Monolith D17. 10 September 1973.



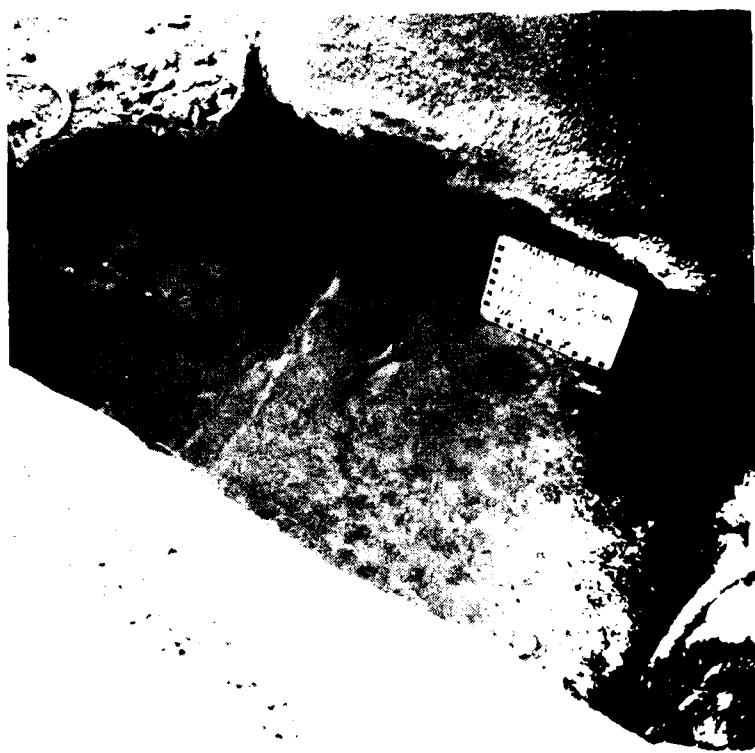
Station 1+38, Offset centerline, Elevation 626 feet. Final foundation preparation of collapsed sinkhole in Monolith D17. 13 October 1975.



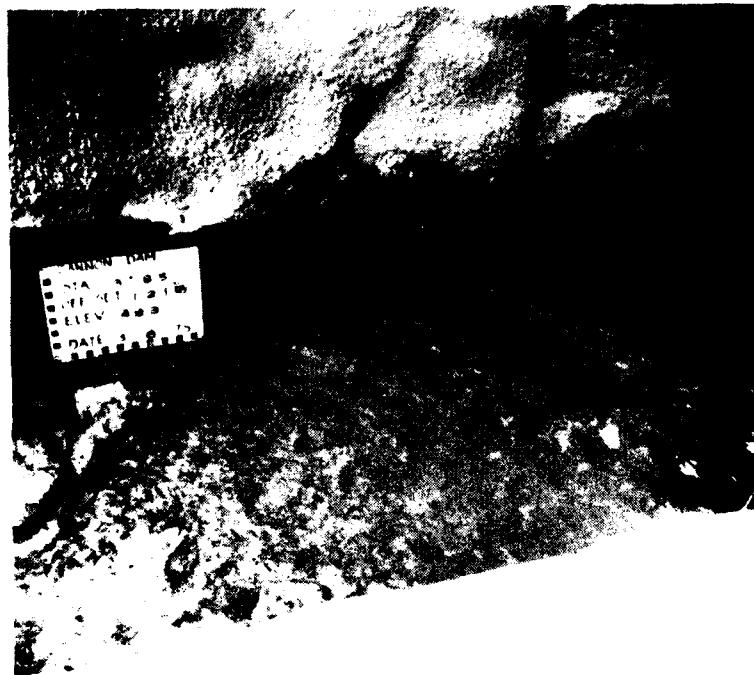
Station 1+38, Offset centerline, Elevation 626 feet. Final foundation preparation of collapsed sinkhole in Monolith D17.
13 October 1975.



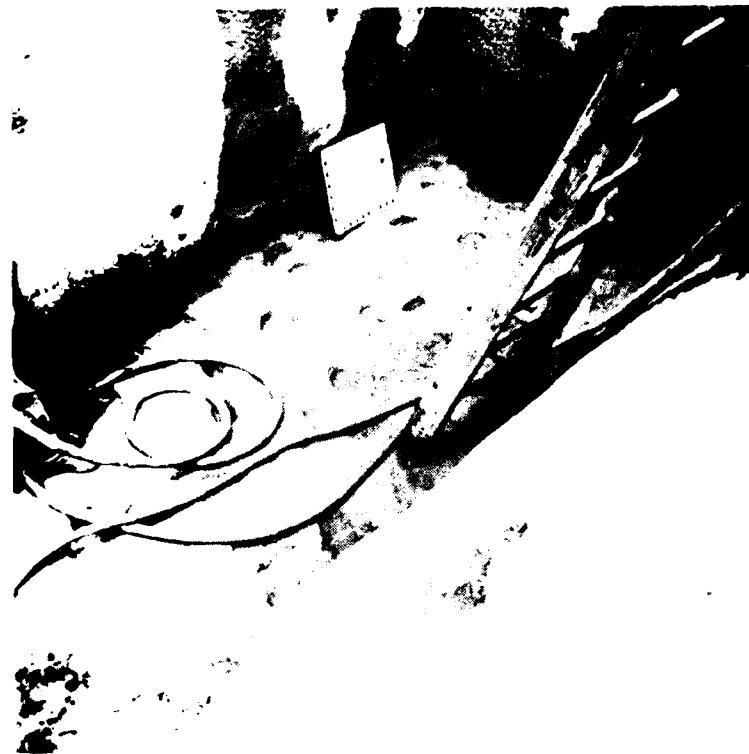
Station 1+75. Offset centerline, Elevation 629 feet, Monolith D17.
13 October 1975.



Station 3+85, Offset 120 feet downstream. Elevation 483 feet.
Final foundation, Stilling Basin Keyway. 8 May 1975.



Station 3+85, Offset 121 feet downstream. Elevation 483 feet.
Final foundation, Stilling Basin Keyway. 7 May 1975.



Station 3+85, Offset 170 feet downstream, Elevation 483 feet.
Final foundation, Stilling Basin Keyway. 7 May 1975.



Station 3+85, Offset 125 feet downstream, Elevation 493 feet.
North Wall SB-1, Stilling Basin Wall. 12 November 1974.



Station 3+10, Offset 110 feet downstream, Elevation 487 feet.
Final foundation SB-1, Stilling Basin Wall. 21 April 1975.



Station 3+55, Offset 111 feet downstream. Elevation 487 feet.
Final foundation SB-1, Stilling Basin Wall. 21 April 1975.



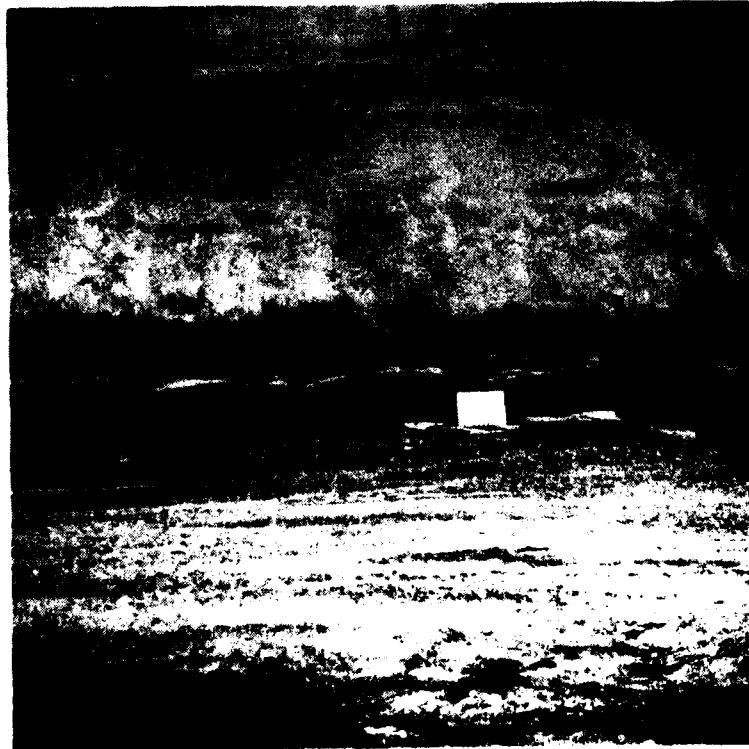
Station 3+56, Offset 155 feet downstream, Elevation 487 feet.
Final foundation SB-2, Stilling Basin Wall. 22 April 1975.



Station 3+20, Offset 170 feet downstream, Elevation 487 feet.
Final foundation SB-2/3, Stilling Basin Wall. 21 April 1975.



Station 3+05, Offset 190 feet downstream, Elevation 510 feet.
South Wall SB-3, Stilling Basin Wall. 24 October 1974.



Station 3+07, Offset 230 feet downstream, Elevation 510 feet.
South Wall SB-4, Stilling Basin Wall. 24 October 1974.



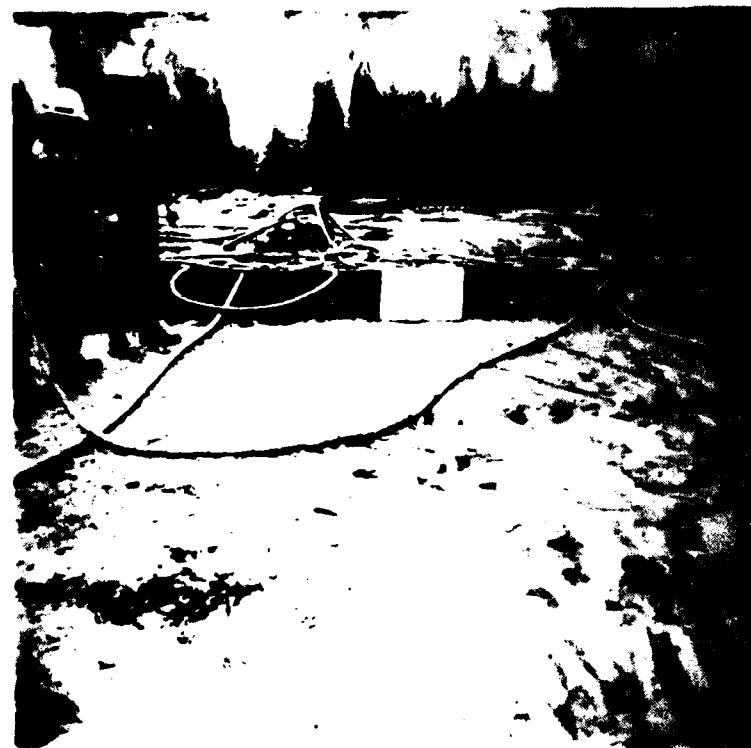
Station 3+85, Offset 220 feet downstream, Elevation 492 feet.
North Wall SB-4, Stilling Basin Wall. 12 November 1974.



Station 3+40, Offset 185 feet downstream, Elevation 487 feet.
Final foundation SB-4, Stilling Basin Wall. 17 April 1975.



Station 3+55, Offset 210 feet downstream. Elevation 488 feet.
Final foundation SB-4, Stilling Basin Wall. 15 April 1975.



Station 3+25, Offset 210 feet downstream, Elevation 488 feet.
Final foundation SB-4, Stilling Basin Wall. 15 April 1975.



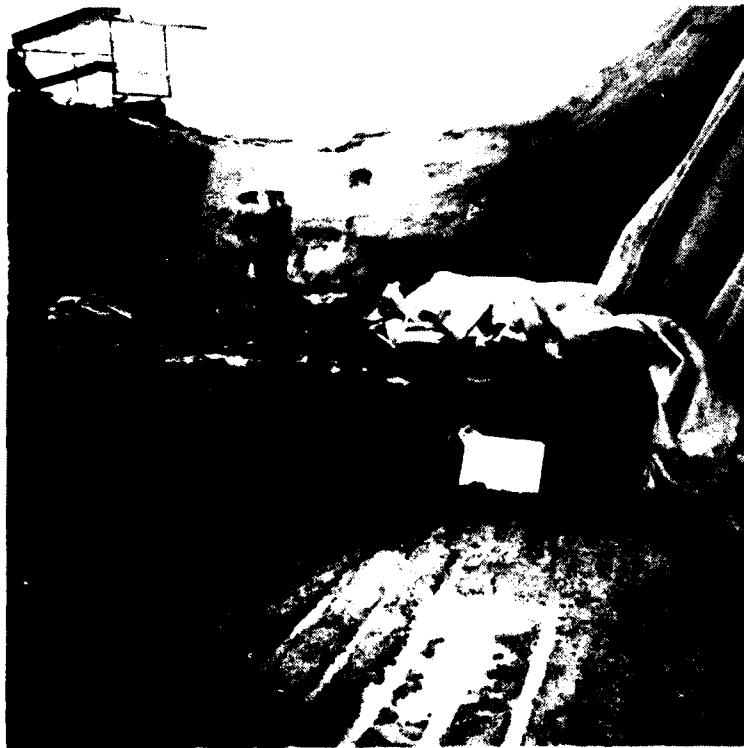
Station 3+75, Offset 237 feet downstream, Elevation 487 feet.
Final foundation SB-4, Stilling Basin Wall. 9 April 1975.



Station 3+40, Offset 280 feet downstream, Elevation 496 feet.
Final foundation SB-5, Stilling Basin Wall. 22 June 1975.



Station 3+40, Offset 240 feet downstream, Elevation 500 feet.
South Wall SB-5, Stilling Basin Wall. 6 November 1974.



Station 3+30, Offset 275 feet downstream. Elevation 497 feet.
Downstream Wall SB-5, Stilling Basin Wall. 12 November 1974.



Station 5+60, Offset 147 feet downstream, Elevation 465 feet.
Final foundation SP-1, Splitter Wall. 16 June 1975



Station 5+48, Offset 129 feet downstream, Elevation 465 feet.
Final foundation SP-1, Splitter Wall. 19 January 1975



Station 5+43, Offset 127 feet downstream, Elevation 482 feet.
South Wall SP-1, Splitter Wall. 6 August 1974



Station 6+24, Offset 180 feet downstream, Elevation 488 feet.
North Wall SP-3, Splitter Wall. 3 August 1974



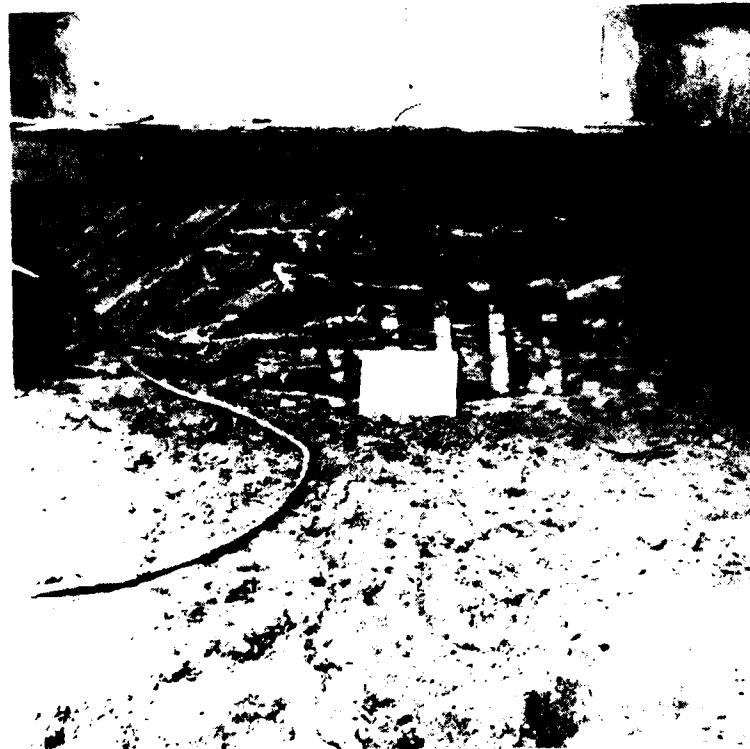
Station 5+57, Offset 198 feet downstream, Elevation 482 feet.
Backwall of SP-3, Splitter Wall. 6 August 1974



Station 5+40, Offset 170 feet downstream, Elevation 480 feet.
South Wall SP-3, Splitter Wall. 15 August 1974



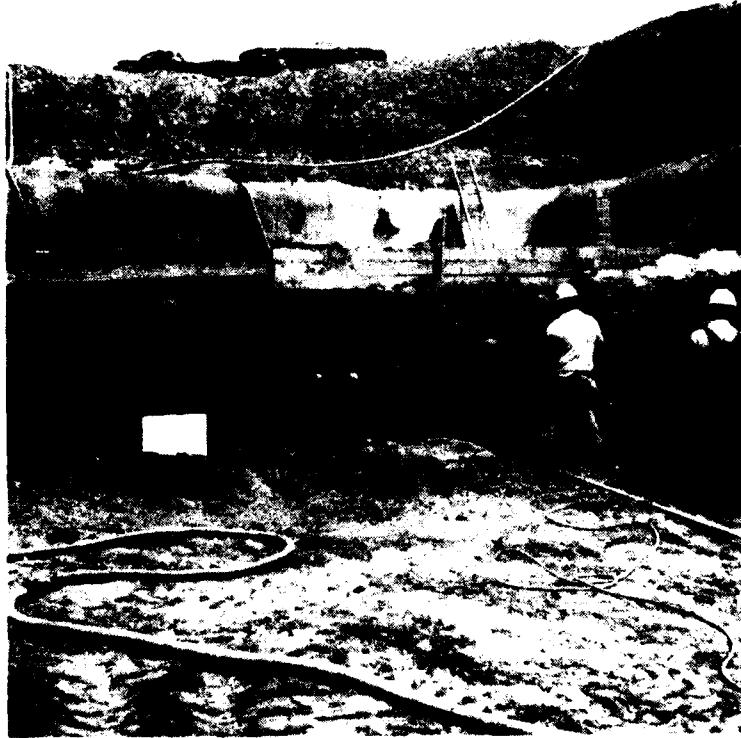
Station 6+15, Offset 237 feet downstream, Elevation 485 feet.
Downstream Wall SP-4, Splitter Wall. 8 August 1974



Station 6+00, Offset 237 feet downstream. Elevation 485 feet.
Downstream Wall SP-4, Splitter Wall. 8 August 1974



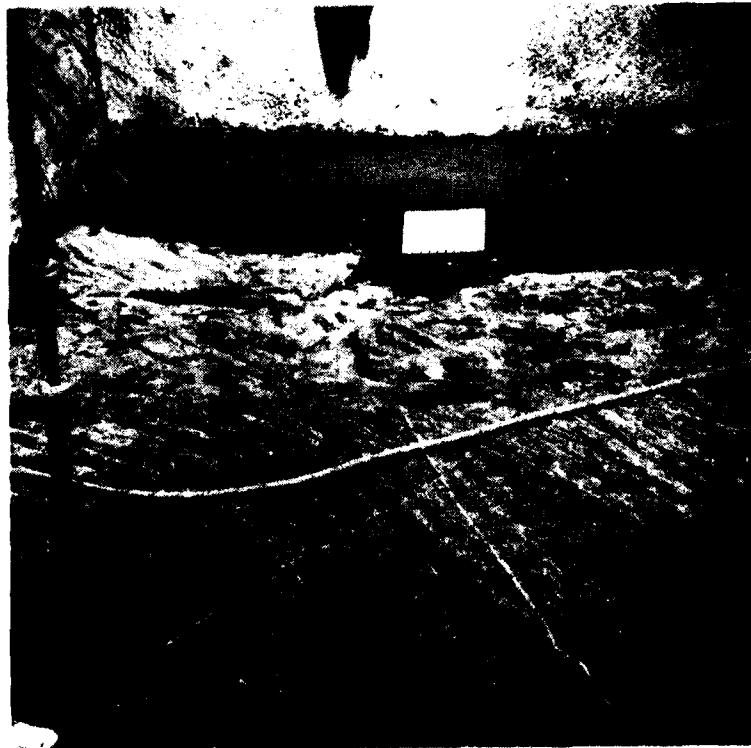
Station 6+22, Offset 207 feet downstream, Elevation 488 feet.
North Wall SP-4, Splitter Wall. 8 August 1974



Station 6+00, Offset 276 feet downstream. Elevation 491 feet.
Downstream Wall SP-5, Splitter Wall. 22 July 1974



Station 6+10, Offset 255 feet downstream, Elevation 490 feet.
Final foundation SP-5, Splitter Wall. 8 July 1974



Station 6+10, Offset 265 feet downstream, Elevation 490 feet.
Final foundation SP-5, Splitter Wall. 7 August 1974



Station 6+20, Offset 255 feet downstream, Elevation 491 feet.
North Wall SP-5, Splitter Wall. 2 August 1974



Station 6+10, Offset 310 feet downstream, Elevation 498 feet.
Downstream wall SP-6, Splitter Wall. 25 July 1974



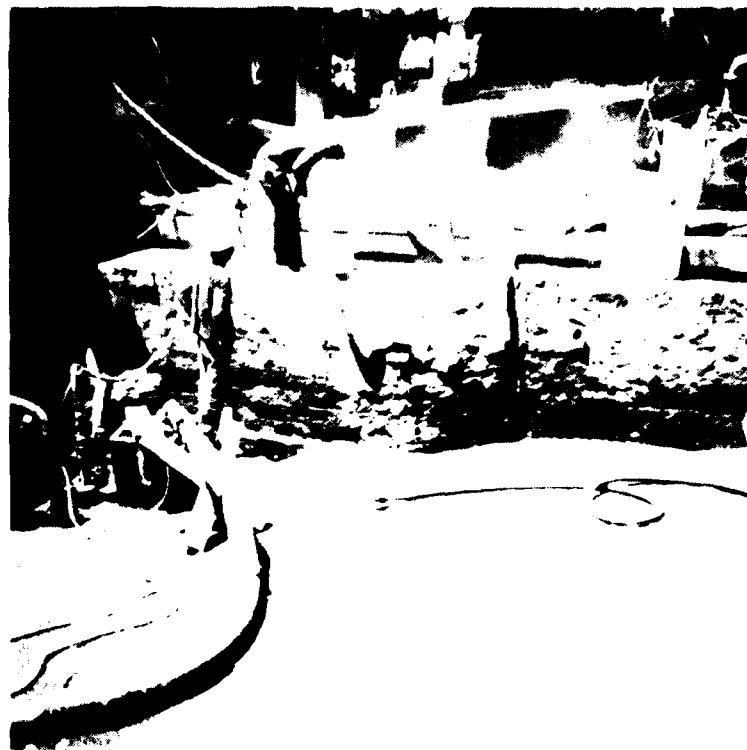
Station 6+20, Offset 290 feet downstream, Elevation 498 feet.
North Wall SP-6, Splitter Wall. 25 July 1974



Station 6+05, Offset 310 feet downstream, Elevation 497 feet.
Final foundation SP-6, Splitter Wall. 1 August 1974



Station 8+05, Offset 123 feet downstream, Elevation 478 feet.
North Wall TA-1, Tailrace Wall. 30 July 1974



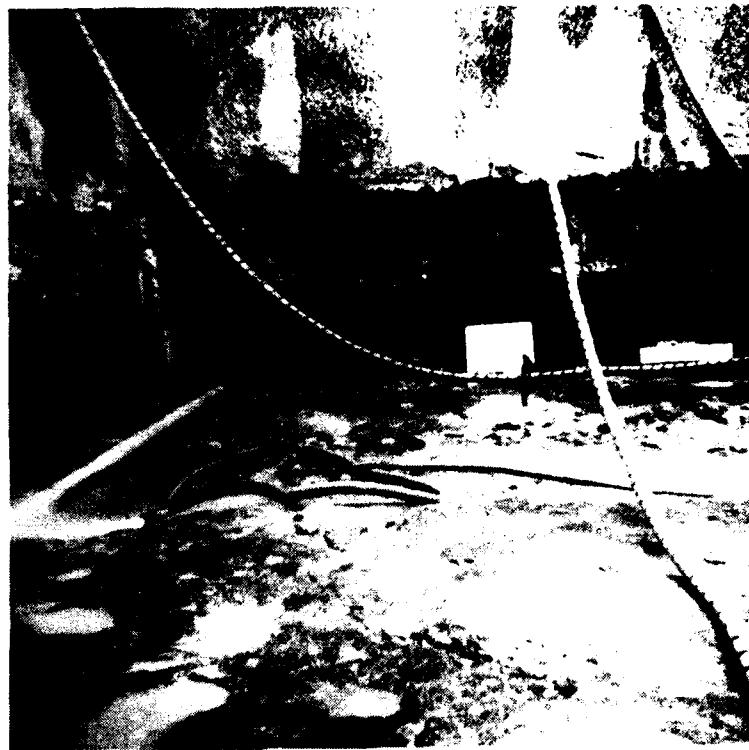
Station 7+98, Offset 145 feet downstream, Elevation 460 feet.
Final foundation TA-1, Tailrace Wall. 9 July 1975.



Station 8+01, Offset 170 feet downstream, Elevation 465 feet.
North Wall TA-2, Tailrace Wall. 13 September 1974



Station 7+40, Offset 158 feet downstream, Elevation 465 feet.
Final foundation TA-2, Tailrace Wall. 5 November 1974



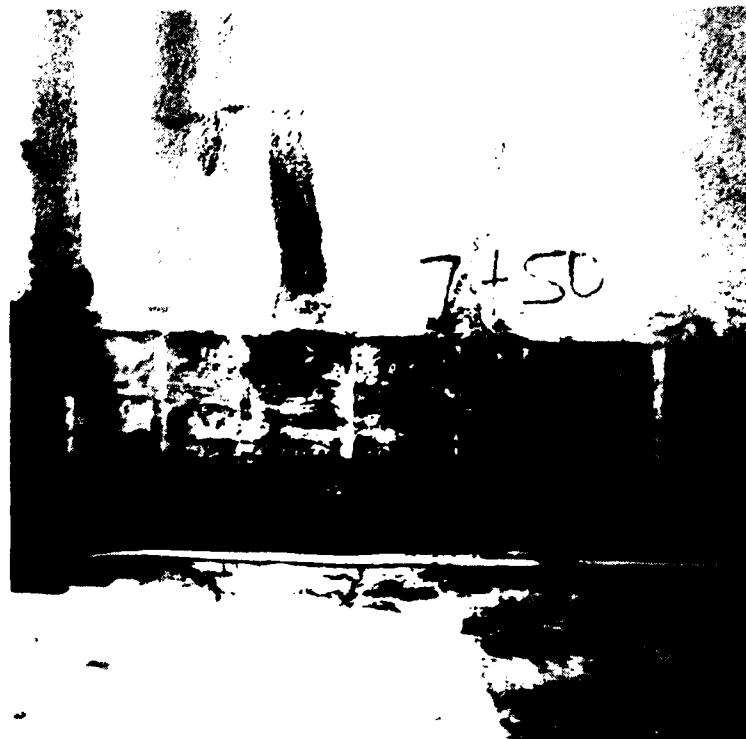
Station 7+90, Offset 212 feet downstream, Elevation 465 feet.
TA-3, Tailrace Wall. 5 November 1974



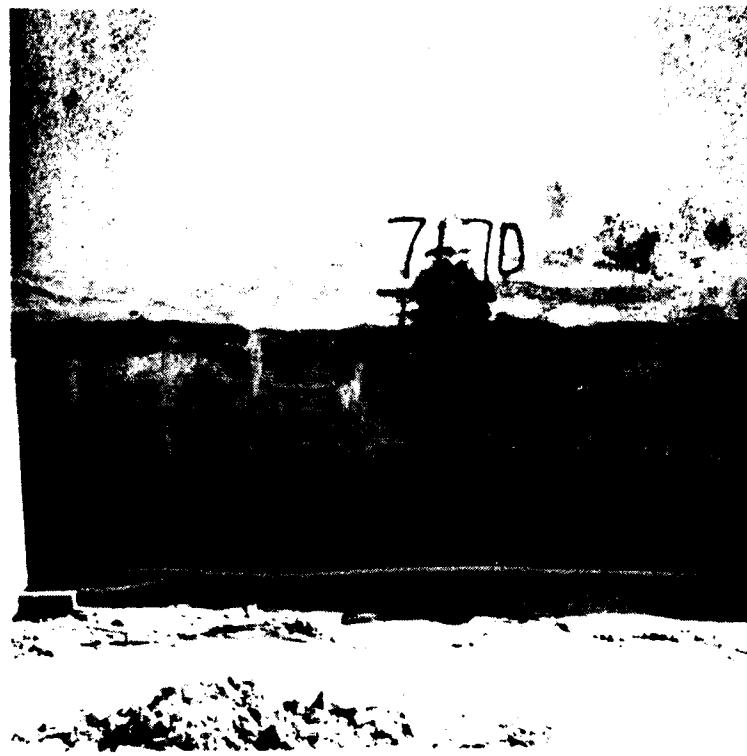
Station 7+70, Offset 213 feet downstream, Elevation 465 feet.
East Wall TA-3, Tailrace Wall. 13 September 1974



Station 7+40, Offset 212 feet downstream, Elevation 475 feet.
East Wall TA-3, Tailrace Wall. 31 July 1974



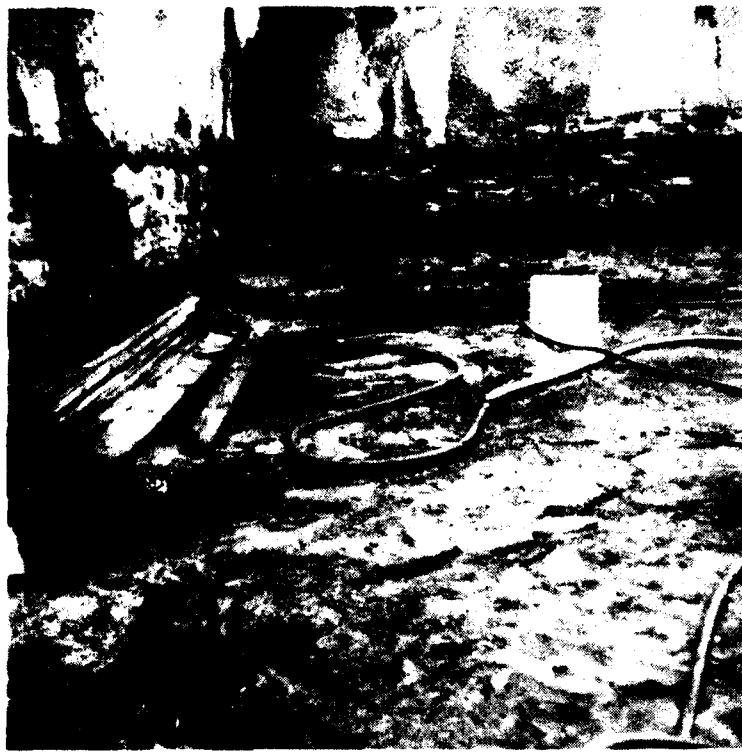
Station 7+50, Offset 212 feet downstream, Elevation 465 feet.
Final foundation East Wall TA-3, Tailrace Wall. 20 September 1974



Station 7+70, Offset 200 feet downstream, Elevation 465 feet.
East Wall TA-3, Tailrace Wall. 20 September 1974



Station 7+23. Offset 200 feet downstream, Elevation 465 feet.
Final foundation South Wall TA-3, Tailrace Wall. 5 November 1974



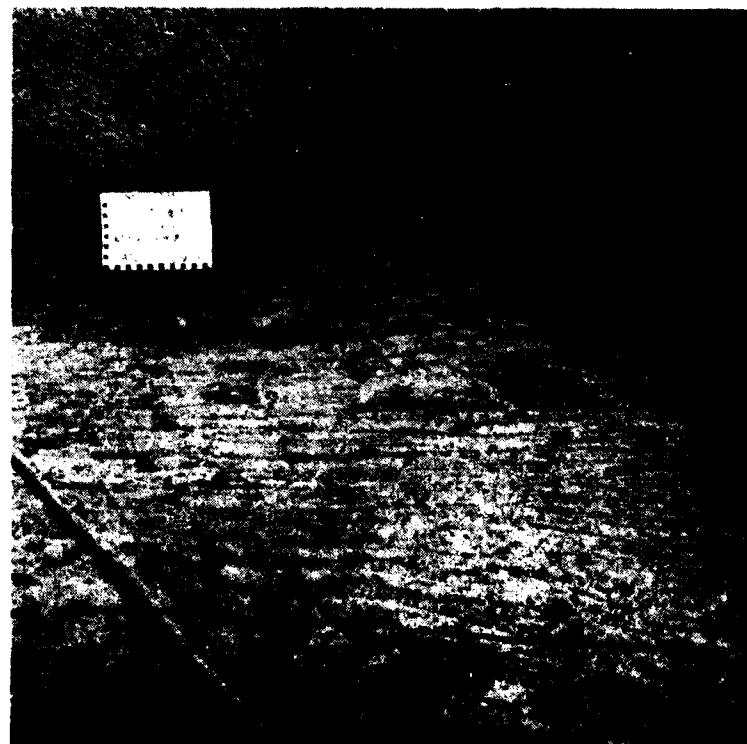
Station 7+40, Offset 200 feet downstream, Elevation 465 feet.
Final foundation TA-3, Tailrace Wall. 5 November 1974



Station 7+23, Offset 213 feet downstream, Elevation 465 feet.
Final foundation S. E. corner TA-3, Tailrace Wall. 20 September 1974



Station 7+24, Offset 230 feet downstream, Elevation 490 feet.
Southeast Wall TA-4, Tailrace Wall. 19 July 1974



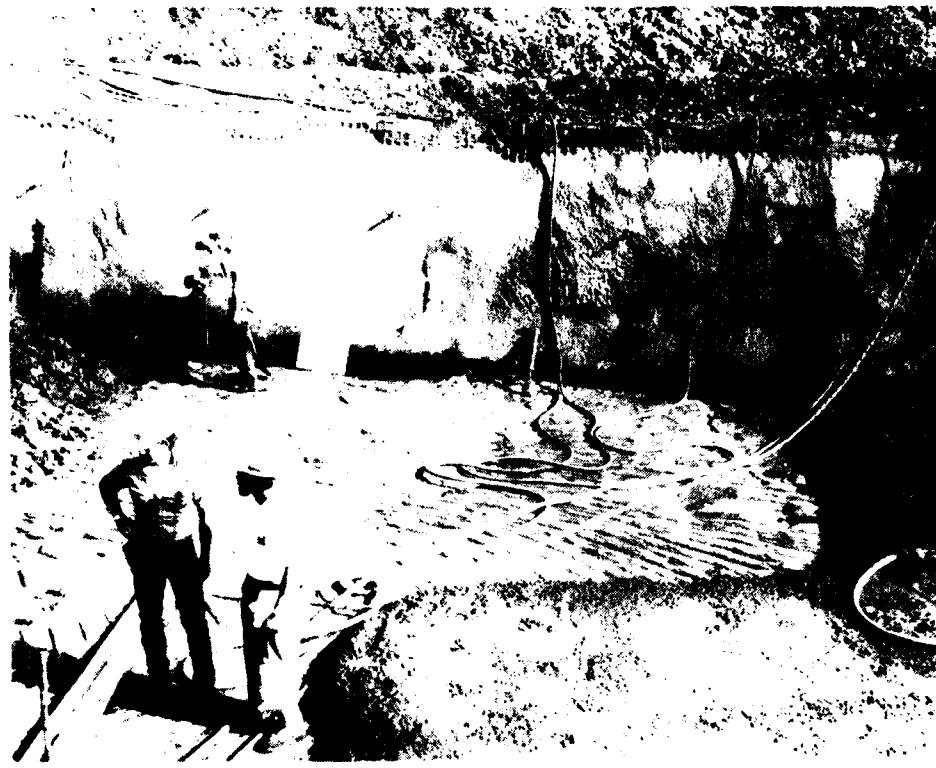
Station 7+85, Offset 220 feet downstream, Elevation 490 feet.
Final foundation TA-4, Tailrace Wall. 29 July 1974



Station 7+85, Offset 250 feet downstream, Elevation 490 feet.
TA-5 Wall, Tailrace Wall. 14 July 1974



Station 7+55, Offset 302 feet downstream, Elevation 490 feet.
Downstream Wall TA-7, Tailrace Wall. 14 July 1974



Station 7+80, Offset 314 feet downstream, Elevation 496 feet.
Final foundation TA-7, Tailrace Wall. 11 July 1974



Station 7+34, Offset 310 feet downstream, Elevation 496 feet.
Final foundation TA-7, Tailrace Wall. 11 July 1974



Station 7+40, Offset 330 feet downstream, Elevation 496 feet.
Final foundation TA-8, Tailrace Wall. 11 July 1974



Station 7+58, Offset 383 feet downstream, Elevation 497 feet.
Back Wall TA-9, Tailrace Wall. 29 June 1974



Station 7+70, Offset 350 feet downstream. Elevation 496 feet.
Final foundation TA-9, Tailrace Wall. 10 July 1974



Station 4+00, Offset 235 feet downstream, view west, applying bituminous coating on final foundation of Stilling Basin. 22 June 1976



Station 4+15, Offset 260 feet downstream, view southeast, preparing final foundation in Stilling Basin. 23 June 1976



Station 4+70, Offset 180 feet downstream, view east, applying bituminous coating on final foundation of Stilling Basin. 9 June 1976



Station 4+65, Offset 215 feet downstream, view north, applying bituminous coating on final foundation of Stilling Basin. 17 June 1976



Station 4+65, Offset 205-215 feet downstream, view north, applying bimetallic coating on final foundation of Stilling Basin. 17 June 1976



Station 4+65, Offset 220 feet downstream, view north, Stilling Basin Keyway. 16 June 1976



Station 4+60, Offset 250 feet downstream, view north, final foundation of Stilling Basin. 24 June 1976



Station 4+85, Offset 240 feet downstream, final foundation preparation of Stilling Basin. 29 June 1976



Station 5+37, Offset 135 feet downstream, Elevation 502 feet.
Final foundation of Stilling Basin. 17 June 1974



Station 5+35, Offset 260 feet downstream, view northeast, final
foundation of Stilling Basin. 7 July 1976



Station 5+30, Offset 210 feet downstream, view northeast, final foundation of Stilling Basin. 17 July 1976



Station 5+45, Offset 240 feet downstream, view upstream, final foundation of Stilling Basin. 1 July 1976



Station 3400, offset 260 feet downstream, view upstream, final
foundation of Stilling Basin, 30 June 1970



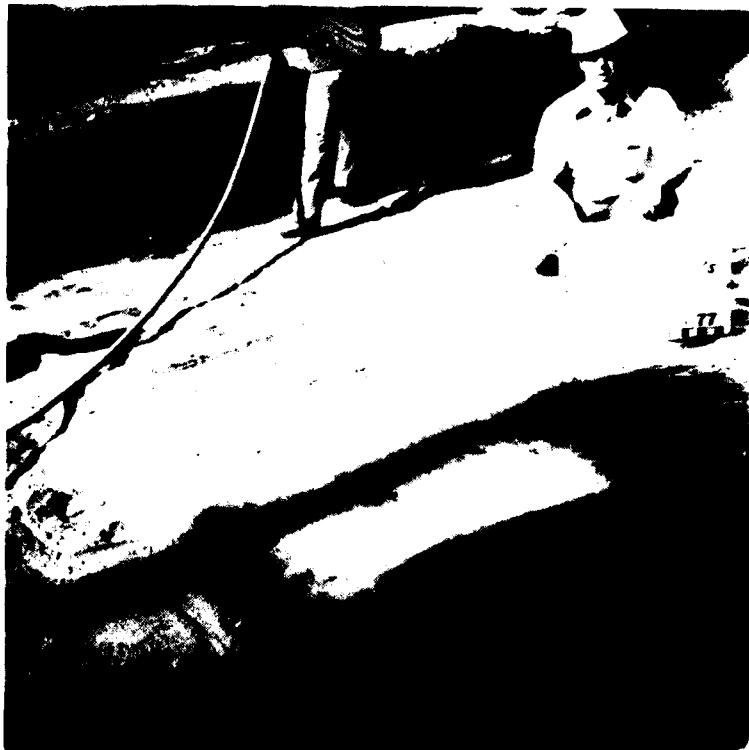
Station 6+07, Offset 162 feet downstream, view upstream, Final foundation of Tailrace Slab. 30 September 1977



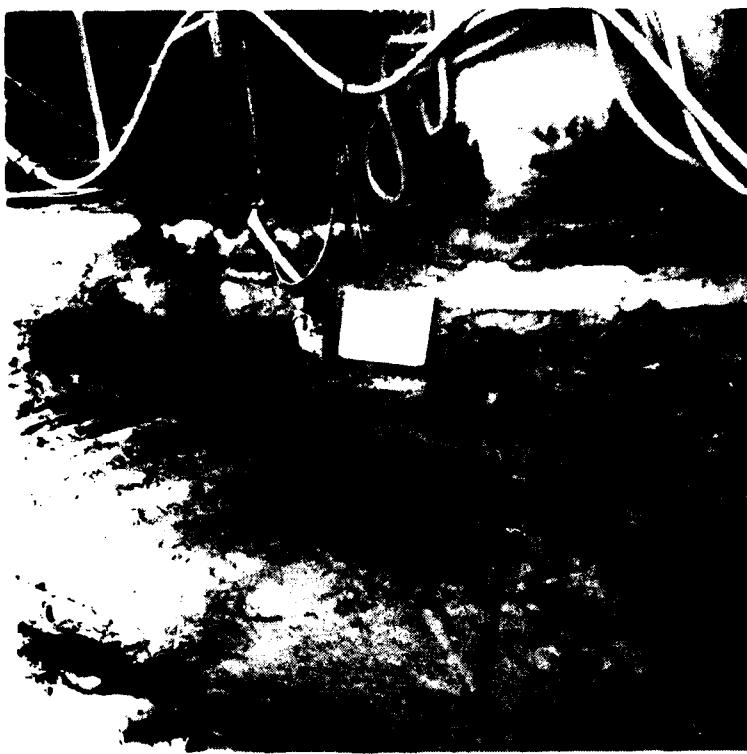
Station 6+20, Offset 122 feet downstream, view south, Final foundation of Tailrace Slab. 29 September 1977



Station 6+30. Offset 210 feet downstream, final foundation
of Tailrace Slab. 11 October 1977



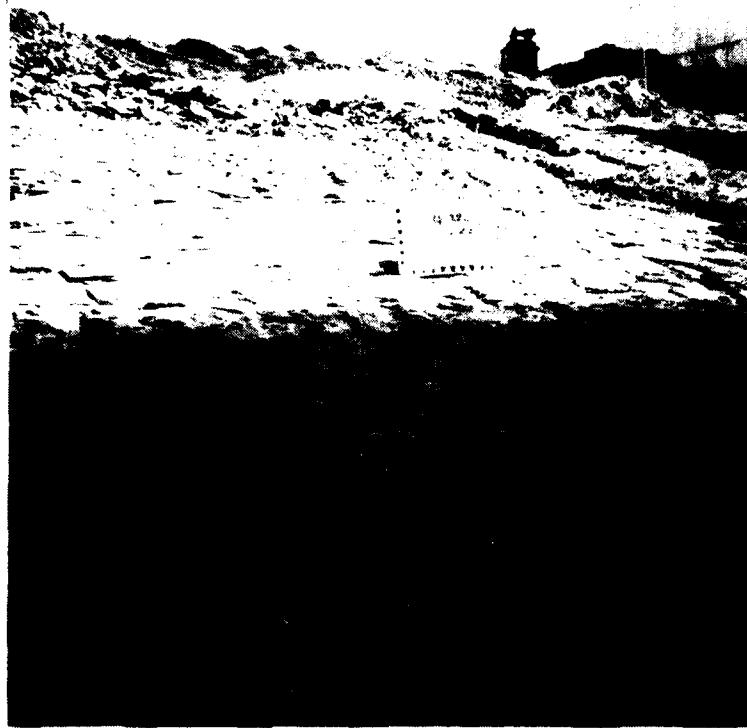
Station 6+53. Offset 182 feet downstream, final foundation
of Tailrace Slab. 6 October 1977



Station 6+81, Offset 122 feet downstream, note joint in floor.
Final foundation of Tailrace Slab. 3 October 1977



Station 6+83, Offset 162 feet downstream, final foundation
of Tailrace Slab. 5 October 1977



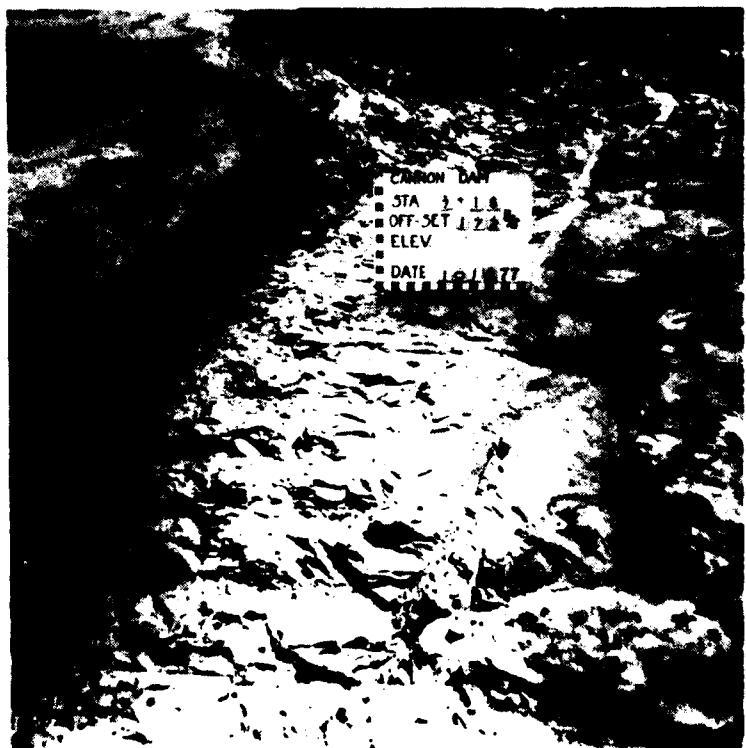
Station 6+80, Offset 192 feet downstream, view downstream,
final foundation of Tailrace Slab. 12 October 1977



Station 7+04, Offset 147 feet downstream, view southeast,
final foundation of Tailrace Slab. 6 October 1977



Station 7+00, Offset 212 feet downstream, view downstream, note joint on floor, final foundation of Tailrace Slab. 12 October 1977



Station 7+15, Offset 172 feet downstream, final foundation of Tailrace Slab. 10 October 1977

END

FILMED

12-85

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END

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